



Combined Data Sheet

Wednesday, October 24, 2007

KRATON® G-1652**Kraton Polymers LLC - Styrene Ethylene Butylene Styrene Block Copolymer**

Unit System:

English

Actions

Legend (Open)

**General Information****Product Description**

KRATON® G1652 is a clear, linear triblock copolymer based on styrene and ethylene/butylene with a polystyrene content of 30%. KRATON G1652 is used as a modifier of bitumen and polymers. It is also suitable as an ingredient in formulating compounds for footwear applications and may be used in formulating adhesives, sealants, and coatings.

General

Material Status	• Commercial: Active
Availability	• North America
Test Standards Available	• ASTM
Additive	• Antioxidant
Features	• Antioxidant • Copolymer
Uses	• Adhesives • Footwear • Coating Applications • Sealants
Appearance	• Clear
Forms	• Pellets
Processing Method	• Compression Molding • Film, Cast

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density-Specific Gravity	0.910	sp gr 23/23°C	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	5.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress @ 300%	700	psi	ASTM D412
Tensile Str @ Yield Elast	4500	psi	ASTM D412
Elongation @ Yield Elast	500	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (A Scale)	69		ASTM D2240

Additional Properties

Solution Viscosity, BAM 922: 400 to 525cps
Antioxidant Content, BAM 929: 0.03 to 0.1%w
Styrene/Rubber ratio, No standard: 30/70%
Polystyrene Content, BAM 919: 29 to 30.8%w
Volatile Matter, BAM 907: 0.6%w
Total Extractables, BAM 905: 1%w

Notes

¹ Typical properties: these are not to be construed as specifications.

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Kraton® D1101 (SBS) Linear Block Copolymer

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Material suppliers

Subcategory: Elastomer, TPE; Polymer; Thermoplastic

Material Notes:

(SBS) styrene-butadiene-styrene block polymer. KRATON® Polymers require no premastication or vulcanization. They can be blended with thermoplastic polymers and significantly improve the impact qualities of the material, both at room and low temperature. This KRATON polymer meets FDA regulations as articles or as ingredients in articles intended for food contact. FDA clearances vary from one grade to another. For specific clearances, letters of certification will be provided on request.

Applications: modified asphalts, thermoplastic and thermoset polymer modification, adhesives, sealants, coatings, sporting goods, film, and general elastomer compounding.

Information provided by the manufacturer, Kraton® Polymers.

[Click here to view available vendors for this material.](#)

New suppliers have been added for this product during 2007! The list of suppliers can be seen by clicking the truck icon to the upper right or the text link just above.

Physical Properties	Metric	English	Comments
Specific Gravity	0.94 g/cc	0.034 lb/in³	
Brookfield Viscosity	4000 cP	4000 cP	Toluene solution at 25°C (77°F). Neat polymer concentration, 25%w.
Melt Flow	Max 1 g/10 min	Max 1 g/10 min	

Mechanical Properties

Hardness, Shore A	69	69	10 seconds. Typical values on polymer compression molded at 150°C (300°F).
Tensile Strength, Ultimate	31.72 MPa	4600 psi	Tensile tester jaw separation 10 in/min (25.4 cm/min). Typical properties based on film cast from toluene solution.; ASTM D412
Elongation at Break	880 %	880 %	Tensile tester jaw separation 10 in/min (25.4 cm/min); ASTM D412
300% Modulus	2.76 GPa	400 ksi	

Electrical Properties

Electrical Resistivity	1e+014 - 1e+016 ohm-cm	1e+014 - 1e+016 ohm-cm	at 23°C (74°F)
Dielectric Strength	11.81 - 39.37 kV/mm	300 - 1000 kV/in	at 23°C (74°F)

Thermal Properties

Glass Temperature	-80 °C	-112 °F	
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Kraton® D1102 (SBS) Linear Block Copolymer [Return to last search](#) [Printer friendly version](#) [Download to Excel \(requires Excel and Windows\)](#) [Export data to your CAD/FEA program](#)Add to Folder: ☐[Material suppliers](#) **Subcategory:** Elastomer, TPE; Polymer, Thermoplastic**Material Notes:**

(SBS) styrene-butadiene-styrene block polymer. KRATON® Polymers require no premastication or vulcanization. They can be blended with thermoplastic polymers and significantly improve the impact qualities of the material, both at room and low temperature. This KRATON polymer meets FDA regulations as articles or as ingredients in articles intended for food contact. FDA clearances vary from one grade to another. For specific clearances, letters of certification will be provided on request.

Applications: modified asphalts, thermoplastic and thermoset polymer modification, adhesives, sealants, coatings, sporting goods, film, and general elastomer compounding.

Information provided by the manufacturer, Kraton® Polymers.

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Physical Properties	Metric	English	Comments
Specific Gravity	0.94 g/cc	0.034 lb/in ³	
Brookfield Viscosity	1200 cP	1200 cP	Toluene solution at 25°C (77°F). Neat polymer concentration, 25%w.
Melt Flow	11 g/10 min	11 g/10 min	
Mechanical Properties			
Hardness, Shore A	66	66	10 seconds. Typical values on polymer compression molded at 150°C (300°F).
Tensile Strength, Ultimate	31.72 MPa	4600 psi	Tensile tester jaw separation 10 in/min (25.4 cm/min). Typical properties based on film cast from toluene solution.; ASTM D412
Elongation at Break	880 %	880 %	Tensile tester jaw separation 10 in/min (25.4 cm/min); ASTM D412
300% Modulus	2.76 GPa	400 ksi	
Electrical Properties			
Electrical Resistivity	1e+014 - 1e+016 ohm-cm	1e+014 - 1e+016 ohm-cm	at 23°C (74°F)
Dielectric Strength	11.81 - 39.37 kV/mm	300 - 1000 kV/in	at 23°C (74°F)
Thermal Properties			
Glass Temperature	-80 °C	-112 °F	



Tuesday, October 23, 2007

KRATON® D-4271

Unit System:

Kraton Polymers LLC - Styrene Butadiene Styrene Block Copolymer

Actions Legend (Open)



General Information

Product Description

KRATON® D-4271 polymer is an oil-extended branched block copolymer based on styrene and butadiene, with bound styrene in the neat polymer of 45% mass. It contains 50phr non-staining paraffinic oil which is classified as non hazardous. Information on the CAS and EINECS registry numbers of the paraffinic oil used for this grade is available on request. KRATON D-4271 polymer is used for formulating compounds for footwear and general purpose applications and as a modifier of bitumen.

General

Material Status	• Commercial: Active
Availability	• Europe • Pacific Rim
Test Standards Available	• ASTM • ISO
Bound Styrene (ASTM D5775)	• 44.0 to 46.0 %
Features	• Copolymer
Uses	• Footwear • General Purpose
Forms	• Pellets
Processing Method	• Film, Cast • Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.938	g/cm³	ISO 1183
Bulk Factor	0.40		ASTM D1895
Melt Mass Flow Rate (MFR) (200°C/5.0 kg)	11	g/10 min	ISO 1133
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress at 300%	0.290	ksi	ISO 37
Tensile Stress at Yield	2320	psi	ISO 37
Tensile Strain at Break	1000	%	ISO 37
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A)	71		ISO 868

Additional Properties

The value listed as Density, ISO 1183, was tested in accordance with ISO 2781.
Bound Styrene, KM03: 44 to 46%mass
Volatile Matter, KM04: 0.3%mass
Ash Content, ISO 247 B: 0.15 to 0.45%mass
Total Extractables, KM05: 32.5 to 35.5%mass
Antioxidant Content, KM08: 0.2%mass
Melt Flow, ISO 1133, 200 °C/5kg: 8 to 13g/ 10 min
Hardness, ISO 868, Shore A: 69 to 73
Abrasion, DIN 53516: 160mm³

Notes

¹ Typical properties: these are not to be construed as specifications.